

REMARKS

In the Office Action mailed November 26, 2002, applicants note with appreciation the allowance of Claim 12. In that same Office Action, Claims 1, 2 and 5 are rejected under 35 U.S.C. §102(b), as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as being unpatentable over DE 955,094 in the name of Windemuth et al. Claims 6-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 3,001,971, issued to Scott et al. in view of U.S. Pat. No. 4,532,316, issued to Henn et al. Claim 8 is rejected under 35 U.S.C. §112, second paragraph as being indefinite. Claim 3 is objected to by the Examiner for depending upon a rejected claim.

Rejections under 35 U.S.C. §112, second paragraph

Claim 8 is rejected under 35 U.S.C. §112, second paragraph as being indefinite. Claim 8 has been amended to depend from Claim 7. Applicants contend that Claim 7 provides proper antecedent basis for "the prepolymer".

Applicants submit that because of the above-detailed changes, the claims are in compliance with 35 U.S.C. §112, first paragraph, and respectfully request the Examiner reconsider and reverse her rejection of Claim 8 under 35 U.S.C. §112, second paragraph, as being indefinite.

Rejections under 35 U.S.C. §102(b)

Claims 1, 2 and 5 are rejected under 35 U.S.C. §102(b), as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as being unpatentable over DE 955,094 in the name of Windemuth et al.

Applicants respectfully remind the Examiner that as stated in MPEP §2131, to anticipate a claim, a reference must teach every element of that claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Applicants respectfully contend that the Examiner has failed to point to where Windemuth et al. do so. As the Examiner states at page 2, paragraph numbered 4, of the instant Office Action, Windemuth et al. extend with



water. The claims as instantly amended specifically exclude water as element c), i.e., the chain lengthening or crosslinking agent. Support for such amendment is found in the instant specification, *inter alia*, at page 7, lines 12-14 and in the description of the examples at page 9.

As stated in MPEP §2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, citing *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992). Clearly there is no such teaching, suggestion or motivation shown in the reference in this case. Windemuth et al. teach away from the instantly claimed invention by disclosing extension with water. One of ordinary skill in the art would be lead away from the instantly claimed chain lengthening or crosslinking agents by the disclosure of Windemuth et al.

Therefore, applicants respectfully request the Examiner reconsider and reverse her rejection of Claim 1, 2 and 5 under 35 U.S.C. §102(b), as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as being unpatentable over DE 955,094 in the name of Windemuth et al.

Rejections under 35 U.S.C. §103(a)

Claims 6-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 3,001,971, issued to Scott et al. in view of U.S. Pat. No. 4,532,316, issued to Henn et al. Applicants respectfully disagree with the Examiner's contention regarding the cited art.

Applicants respectfully remind the Examiner of the Federal Circuit's admonition given in *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1458-9 (Fed. Cir. 1998) that,

To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and

with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.

Applicants respectfully contend that the Examiner has failed to do so in the instant Office Action. Scott et al. state at col. 1, lines 18-23, that their composition is to be made without a crosslinking agent. Claims 6-11, as instantly amended, include a crosslinking agent as an element thereof. Therefore, the instantly claimed invention is opposed to the teaching of Scott et al. Further, Henn et al. fail to add the missing teaching, suggestion or motivation to Scott et al. which would lead one of ordinary skill to the instantly claimed invention. Henn et al. teach a chain extender, not a crosslinking agent as an element of their invention.

Therefore, applicants contend that nothing in the combined teachings of Scott et al. and Henn et al. would lead one of ordinary skill in the art to the instantly claimed invention and respectfully request the Examiner reconsider and reverse her rejection of Claims 6-11 under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 3,001,971, issued to Scott et al. in view of U.S. Pat. No. 4,532,316, issued to Henn et al.

Claim objection

Claim 3 is objected to by the Examiner for depending upon a rejected claim. Applicants contend that Claims 1 and 2 as amended are patentable, therefore any claims dependent thereupon (Claim 3 depends from Claim 2) are also patentable. Applicants request the Examiner remove her objection to Claim 3.

Conclusion

Applicants have amended Claims 1, 2 and 6-11 and have added Claims 13-15. Applicants contend that such claim amendments add no new matter and find support in the specification. Attached hereto, please find pages captioned "Version with markings to show changes made."

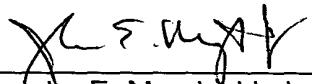
Applicants submit that the instant application is in condition for allowance. Accordingly, reconsideration and a Notice of Allowance are respectfully requested



for Claims 1-3 and 5-15. If the Examiner is of the opinion that the instant application is in condition for other than allowance, she is requested to contact the applicants' Attorney at the telephone number listed below, so that additional changes to the claims may be discussed.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The Claims have been amended as follows:

1. (Four Times Amended) A molded or cast article capable of withstanding high mechanical stress produced from a cellular polyurethane elastomer having a density within the range of from about 0.2 to about 1.1 g/cm³ which comprises the a reaction product of:

- a) from about 65 to about 90 wt.%, based on the total weight of the reaction product, of at least one higher molecular weight polyhydroxyl compound having an average molecular weight of from 500 to 6,000 and a functionality of at least 2;
- b) from about 10 to about 25 wt.%, based on the total weight of the reaction product, of ~~at least one~~ 2,3,5,6-tetramethyl-1,4-diisocyanatobenzene; and
- c) from about 0.2 to about 10 wt.%, based on the total weight of the reaction product, of ~~water and/or~~ at least one low molecular weight chain-lengthening and/or crosslinking agent having at least two hydroxyl groups and an average molecular weight of from 60 to 800,

with the proviso that the at least one chain-lengthening and/or crosslinking agent may not be water.

2. (Thrice Amended) A process for producing the molded or cast article of Claim 1 in which, wherein the higher molecular weight polyhydroxyl compound a) is first reacted with the diisocyanate b) to produce an isocyanate-terminated prepolymer and the prepolymer which is then reacted with the at least one chain-lengthening and/or crosslinking agents and/or the at least one higher molecular weight polyhydroxyl compounds.

6. (Twice Amended) A molded or cast article capable of withstanding high mechanical stress produced from a compact polyurethane elastomer having a density within the range of from about 1.0 to about 1.4 g/cm³ which comprises the a reaction product of:

- a) from about 55 to about 90 wt.%, based on the total weight of the reaction product, of at least one higher molecular weight polyhydroxyl compound having an average molecular weight of from 500 to 6,000 and a functionality of at least 2;
- b) from about 10 to about 25 wt.%, based on the total weight of the reaction product, of at least one 2,3,5,6-tetramethyl-1,4-diisocyanatobenzene; and
- c) from about 1 to about 20 wt.%, based on the total weight of the reaction product, of at least one low-molecular-weight-chain-lengthening and/or crosslinking agent having at least two hydroxyl groups and an average molecular weight of from 60 to 800;

with the proviso that a), b) and c) are reacted in the absence of moisture-water and/or blowing agents which have a physical or chemical blowing action.

7. (Twice Amended) A process for producing the molded or cast article of Claim 6 in which, wherein the at least one higher molecular weight polyhydroxyl compound a) is first reacted with the diisocyanate b) to produce an isocyanate-terminated prepolymer and the prepolymer which is then reacted with the chain-lengthening and/or at least one crosslinking agents and/or at least one higher molecular weight polyhydroxyl compounds.

8. (Amended) The process of Claim 6-7 in which the chain lengthening agent and/or at least one crosslinking agent c) is present during production of the prepolymer.

9. (Twice Amended) A molded or cast article capable of withstanding high mechanical stress produced from a filler-containing compact polyurethane elastomer having a density greater than 1.2 g/cm³ which comprises the a reaction product of:

- a) from about 55 to about 90 wt.%, based on the total weight of the reaction product, of at least one higher molecular weight polyhydroxyl compound having an average molecular weight of from 500 to 6,000 and a functionality of at least 2;

- b) from about 10 to about 25 wt.%, based on the total weight of the reaction product, of at least one 2,3,5,6-tetramethyl-1,4-diisocyanatobenzene; and
- c) from about 1 to about 20 wt.%, based on the total weight of the reaction product, of at least one low molecular weight chain lengthening and/or crosslinking agent having at least two hydroxyl groups and an average molecular weight of from 60 to 800;

with the proviso that a), b) and c) are reacted in the absence of moisture-water and/or blowing agents which have a physical or chemical blowing action.

10. (Twice Amended) A process for producing the molded or cast article of Claim 9 in which, wherein the at least one higher molecular weight polyhydroxyl compound a) is first reacted with the diisocyanate b) to produce an isocyanate-terminated prepolymer and the prepolymer which is then reacted with the chain-lengthening and/or at least one crosslinking agents and/or at least one higher molecular weight polyhydroxyl compounds.

11. (Amended) The process of Claim 10 in which the chain lengthening agent and/or at least one crosslinking agent c) is present during production of the prepolymer.

As explicitly set forth in 37 C.F.R. §1.121(c)(1)(ii), last sentence, a marked up version does not have to be supplied for an added claim or a cancelled claim as it is sufficient to state that a particular claim has been added, or cancelled, and this has been so stated in the Amendment.

In particular, in the instant application, Claims 13-15 have been added.